REMARKS

Of claims 1-24, claims 1, 5-13, 15, 19, and 20 remain under consideration. Claims 2-4 have been cancelled in view of the amendments made to claim 1. Claim 14 has been cancelled. Claims 16-18 have been cancelled in view of the amendments made to claim 19. Claims 21-24 have been cancelled in view of the amendments made to claim 20.

Claim 1 has been amended to incorporate the language of now-cancelled claims 2-4. Antecedent basis for this change can be found in those cancelled claims and accordingly no new matter is introduced by this amendment. Claim 1 has also been amended to add the language "non-reversible," referring to the image formed. Antecedent basis for this amendment is found in paragraph [0024] of this pending application.

In view of the Examiner's 35 U.S.C. §112, second paragraph rejection, claim 5 has been amended to delete the language "a second", referring to the acrylic adhesive layer, to now read "an additional".

Claim 9 has been amended to include the language "a non-reversible image in gray scale". Antecedent basis for the language "non-reversible" is found in paragraph [0024] of the pending application. Antecedent basis for the language "gray scale" is found in paragraph [0010] of the pending application.

Claim 13 has been amended to include the language "a non-reversible image in gray scale". Antecedent basis for the language "non-reversible" is found in paragraph [0024] of the pending application. Antecedent basis for the language "gray scale" is found in paragraph [0010] of the pending application.

In view of the Examiner's statement that claim 19 would be allowable if it incorporated all of the limitations of the preceding claims, claim 19 has been amended to include the limitations of claims 16-18. Antecedent basis for this change can be found in those cancelled claims and accordingly no new matter is introduced by this amendment.

Claim 20 (preamble) has been amended to refer to the laminate as a "temporary personal identification device" rather than "film." Antecedent basis for this amendment is found in paragraph [0010]. Claim 20 has also been amended to add the language "in order to form a non-reversible image in gray scale". Antecedent basis for the language "non-reversible" is found in paragraph [0024] of the pending application. Antecedent basis for the language "gray scale" is found in paragraph [0010] of the pending application. Also, in view of the Examiner's 35 U.S.C. §112, second paragraph rejection, claim 20(a) and (e) have been amended to delete the language "first", referring to the non-cavitated thermoplastic film layer. Claim 20(d) has the additional term "topcoat" added to correctly refer to the "direct thermal topcoat layer" of the preceding portion of the claim, 20(c). Also, in view of the Examiner's 35 U.S.C. §112, second paragraph rejection, claim 20(e) and (f) (formerly now-cancelled claims 21 and 22) have been amended to delete the language "first", referring to the acrylic adhesive layer. Also, in view of the Examiner's 35 U.S.C. §112, second paragraph rejection, claim 20(f) (now-cancelled claim 22) has been amended to delete the language "second", referring to the non-cavitated thermoplastic film layer. The term "second" has been replaced by the term "additional". Finally, claim 20 has been amended to include the all limitations of now-canceled claims 21-24. Antecedent basis for this amendment can be found in those cancelled claims and accordingly no new matter is introduced by this amendment.

Rejections Under 35 U.S.C. §112, second paragraph

Claims 1-18 and 20-22 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. These rejections are specifically addressed below:

Claims 1-17, 20 and 21:

Claims 1-17, 20 and 21 recite a "first" non-cavitated film without reciting a "second" non-cavitated film. Claim 1 has been amended to recite both a first and second non-cavitated film layer. Claims 15-17 have been canceled. Claims 20 and 21 have been amended to delete this term. Thus, the Examiner's rejection of claims 1-17, 20 and 21 under 35 U.S.C. §112, second paragraph, has been overcome and should be withdrawn.

Claims 3, 4, 17, 18, 21 and 22:

Claims 3, 4, 17 and 18 have been canceled. Claim 19 has been amended to incorporate a first acrylic adhesive layer and a second acrylic adhesive layer. Claims 21 and 22 recite a "first" acrylic adhesive layer without reciting a "second" acrylic adhesive layer. These claims have been amended to delete this term. Thus, the Examiner's rejection of claims 21 and 22 under 35 U.S.C. §112, second paragraph, has been overcome and should be withdrawn.

Claims 5-8:

Claims 5-8 recite a "second" acrylic adhesive without reciting a "first" acrylic adhesive. These claims have been amended to delete this term. Thus, the Examiner's rejection of claims 5-8 under 35 U.S.C. §112, second paragraph, has been overcome and should be withdrawn.

Rejections Under 35 U.S.C. §102(b)

The McFall et al. rejection (USP 6,479,431)

The Examiner has rejected claims 1-4, 15-18 and 20-22 under 35 U.S.C. 102(b) as being anticipated by McFall et al., (U.S. Patent No. 6,479,431). The Applicant respectfully traverses this rejection, as McFall et al. fails to disclose each and every element of the claimed invention.

McFall relates to a lamination comprising: a substrate having a first side and a second side; a thermally responsive coating layer overlying said first side of said substrate, said thermally responsive coating layer being capable of forming an image when heat is selectively applied to said thermally responsive coating layer; a light transmissive protective layer overlying said thermally responsive coating layer, said light transmissive protective layer having an image receiving surface and being capable of transmitting heat applied thereto to said thermally responsive coating layer; and an adhesive layer positioned between said light transmissive protective layer and said thermally responsive coating layer (abstract).

McFall et al., however, does not disclose each and every element of the present invention. In particular, McFall et al. fails to disclose a non-cavitated thermoplastic (substrate) film layer (see claims 1, 9, 13, 19 and 20 of the pending application). As the Examiner points out, McFall et al. does disclose that the substrate may be comprised of paper, film, board, a non-woven material, metal foil, polymer film, paper or combinations thereof, as well as textiles including woven and non-woven fabrics made of natural or synthetic fibers (col. 3, lines 34-39). However, McFall et al. is silent as to whether the substrate is cavitated or non-cavitated. The pending application requires that the substrate be non-cavitated and is claimed as such.

Further, the present application also claims that the image formed be non-reversible, utilizing a non-reversible color developing mechanism in the active direct thermal layer. McFall is also silent as to this aspect of the invention. Therefore, each and every element of the claimed invention is not disclosed in McFall et al., and since McFall et al. does not teach or suggest every element of the present invention as claimed, the Examiner's rejection under 35 USC §102(b) should be withdrawn.

Further, the above-cited reference cannot be the basis of a rejection under 35 U.S.C. §103(a), as there is no teaching, motivation or suggestion by McFall et al. to modify its laminate and arrive at the laminate of the pending application.

The Defieuw et al. rejection (USP 6,127,313)

The Examiner has rejected claims 1, 2, 15, 16 and 20 under 35 U.S.C. 102(b) as being anticipated by Defieuw et al., (U.S. Patent No. 6,127,313). The Applicant respectfully traverses this rejection, as Defieuw et al. fails to disclose each and every element of the claimed invention.

Defieuw et al. relates to a thermographic recording material comprising on the same side of a support, called the heat-sensitive side, a thermosensitive element and a outermost layer which contains a cured polymer or cured polymer composition and colloidal silica, wherein the colloidal silica is substantially present in its acidified form and the outermost layer further contains a buffer with a pH between 2 and 7 consisting of at least one acid and at least one non-metallic salt of an acid (abstract).

Defieuw et al. however, does not disclose each and every element of the present invention. In particular, Defieuw et al. fails to disclose a non-cavitated thermoplastic ("support") film layer. As the Examiner points out, Defieuw et al. does disclose that the support may be "transparent, translucent or opaque and is preferably a thin flexible carrier made e.g. from paper, polyethylene coated paper or transparent resin film, e.g. made of a cellulose ester, e.g. cellulose triacetate, polypropylene, polycarbonate or polyester, e.g. polyethylene terephthalate. The support may be in sheet, ribbon or web form and subbed if needs be to improve the adherence to the thereon coated heat-sensitive recording layer" (col. 9, lines 50-56). However, Defieuw et al. is silent as to whether the substrate is cavitated or non-cavitated. The present application requires that the substrate be non-cavitated and is claimed as such (see claims 1, 9, 13, 19 and 20 of the pending application).

Therefore, each and every element of the claimed invention is not disclosed in Defieuw et al., and since Defieuw et al. does not teach or suggest every element of the present invention as claimed, the Examiner's rejection under 35 U.S.C. §102(b) should be withdrawn.

Further, the above-cited reference cannot be the basis of a rejection under 35 U.S.C. §103(a), as there is no teaching, motivation or suggestion by Defieuw et al. to modify its laminate and arrive at the laminate of the pending application.

The Sawamura et al. rejection (EP 0 780 241)

The Examiner has rejected claims 1, 2, 15, 16 and 20 under 35 U.S.C. 102(b) as being anticipated by Sawamura et al., (EP 0 780 241). The Applicant respectfully traverses this rejection, as Sawamura et al. fails to disclose each and every element of the claimed invention.

Sawamura et al. relates to a thermosensitive recording material having a support, a thermosensitive recording layer formed thereon, containing an electron-donating coloring compound, an electron-accepting compound and a binder resin, and a protective layer formed on the thermosensitive recording layer, which contains an ultraviolet-curing resin and a copolymer resin containing a silicone component as a copolymerizing component (abstract).

Sawamura et al. however, does not disclose each and every element of the present invention. In particular, Sawamura et al. fails to disclose a non-cavitated thermoplastic ("support") film layer. As the Examiner points out, Sawamura et al. does disclose that the support may be "a film made of a polyester resin such as polyethylene terephthalate or polybutylene terephthalate; a film made of a cellulose derivative such as cellulose triacetate; a film made of a polyolefin resin such as polypropylene or polyethylene; and a film of polystyrene. Further, those films may be laminated to prepare a support of the thermosensitive recording material" (page 11, lines 56-59). However, Sawamura et al. is silent as to whether the support is cavitated or non-cavitated. The present application requires that the substrate be non-cavitated and is claimed as such (see claims 1, 9, 13, 19 and 20 of the pending application).

Therefore, each and every element of the claimed invention is not disclosed in Sawamura et al., and since Sawamura et al. does not teach or suggest every element of the present invention as claimed, the Examiner's rejection under 35 U.S.C. §102(b) should be withdrawn.

Further, the above-cited reference cannot be the basis of a rejection under 35 U.S.C. §103(a), as there is no teaching, motivation or suggestion by Sawamura et al. to modify its laminate and arrive at the laminate of the pending application.

The Yamane et al. rejection (EP 0 832 757)

The Examiner has rejected claims 1, 2, 15, 16 and 20 under 35 U.S.C. 102(b) as being anticipated by Yamane et al., (EP 0 832 757). The Applicant respectfully traverses this rejection, as Yamane et al. fails to disclose each and every element of the claimed invention.

Yamane et al. relates to a thermosensitive reversible recording material having a thermosensitive recording layer formed on a substrate sheet and including a substantially colorless dye precursor and a color developing agent capable of reversibly color-developing and erasing the dye-precursor (abstract).

Yamane et al., however, does not disclose each and every element of the present invention. In particular, Yamane et al. fails to disclose a non-cavitated thermoplastic (substrate) film layer. As the Examiner points out, Yamane et al. does disclose that the substrate is a "sheet usable for the thermosensitive reversible recording material selected from paper sheets (including acidic and neutral paper sheets), coated paper sheets produced by coating a pigment or latex on the surface thereof, laminate paper sheets, synthetic paper sheets produced from, for example, a polyolefin resin, plastic films, for example, polyolefin, polyester and polyimide films, glass plates and electroconductive rubber sheets, which are usually used for the conventional thermosensitive recording sheets" (page 13, lines 41-54). However, Yamane et al. is silent as to whether the substrate is cavitated or non-cavitated. The present application requires that the substrate be non-cavitated and is claimed as such (see claims 1, 9, 13, 19 and 20 of the pending application).

Further, the present application also claims that the image formed be non-reversible, utilizing a non-reversible color developing mechanism in the active direct thermal layer. Yamane teaches the opposite of this and is directed to a reversible thermal recording medium. Therefore, each and every element of the claimed invention is not disclosed in Yamane et al., and since Yamane et al. does not teach or suggest every element of the present invention as claimed, the Examiner's rejection under 35 U.S.C. §102(b) should be withdrawn.

Further, the above-cited reference cannot be the basis of a rejection under 35 U.S.C. §103(a), as there is no teaching, motivation or suggestion by Yamane et al. to modify its laminate and arrive at the laminate of the pending application.

Rejections Under 35 U.S.C. §103(a)

Claims 1-4, 15-18 and 20-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Dotson et al. (USP 5,984,363) in view of McFall et al. (USP 6,479,431). In making this rejection, the Examiner maintains that Dotson et al. teaches a laminate construction comprising a non-cavitated plastic film, an active direct thermal layer and a radiation-curable topcoat. The Examiner further maintains that McFall et al. teaches that in the art of laminate constructions, it is conventional to apply acrylic adhesive and another cavitated film to the back of the construction in order to make a label. The Examiner argues that it would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have converted the business record of Dotson et al. into the label of McFall and arrive at the laminate of the present invention. The Applicant respectfully traverses this rejection.

To review, the subject matter of the Dotson et al. patent is directed to a business record such as a form, label, or tag having a thermally imagable coating of initially colorless color formers and color developers *only on selected areas* which may be activated to produce a visible image when imaged in a thermal printer (col. 1, lines 58-63). The thermally imagable coatings may be applied in a cost effective manner by the manufacturer of the form, label, or tag on a selected area or areas, or on the entire surface of the form, at the same time other routine operations are performed such as preprinting information on the form or die-cutting the form to produce labels or tags (col. 1, lines 66-67; col. 2, lines 1-9). There is no teaching, suggestion or motivation provided in Dotson et al. to produce non-reversible, images in gray scale on a label which is entirely coated with the direct thermal imaging laminate media.

In addition, the images formed by Dotson et al. are high contrast images whereas the present invention produces an image in gray scale (present application, paragraph [0010], claims 1, 9, 13, 19 and 20). One skilled in the art will recognize that there is a distinct and substantial difference in the chemistry and technology in creating a high contrast color image, restricted to certain places on the label versus creating an image in gray scale on a label.

As discussed earlier, McFall et al. is directed to a label having *dual image* receiving capability. Thus, McFall discloses a lamination which is capable of displaying one image on a light transmissive protective layer that *overlies a second image* formed on *an underlying thermally responsive coating layer*. The light transmissive protective layer is capable of permitting image printing on its surface and it is sufficiently heat transmissive to permit the passage of heat to the underlying thermally responsive coating layer to permit the formation of a heat activated image in the underlying thermally responsive coating layer. The light transmissive protective layer is transmissive to light so that *both images may be viewed simultaneously.*

The relative thicknesses of the layers versus the quantity of the layers (one versus two thermal layers) as the Examiner points out on page 3 of the Office Action is irrelevant as McFall et al. is focused on a *dual imaging laminate* in which the protective layer has an image receiving surface. In contrast to McFall et al., the Applicant's invention is solely directed to a single imaging layer (and claims a sole active direct thermal layer) which produces an image in a single step imaging step. The Applicant's laminate does not contain a light transmissive protective layer image-receiving surface to create the dual image label as taught by McFall et al.

In addition, like Dotson et al., McFall et al. is also not directed to producing images in gray scale, as the disclosed and claimed in the present invention.

Therefore, since Dotson et al. is directed exclusively to coating only selected areas of a label with a thermally imagable laminate to produce a high contrast image and McFall et al. is directed to a high contrast (no gray scale) imaged label, having a dual image receiving capability, there is no motivation or suggestion to combine Dotson et al. in view of McFall and arrive at the laminate of the present invention as the Examiner maintains. The present invention requires that the laminate/imaging media cover the entire surface of a non-cavitated substrate, that a single image be produced via the sole active direct thermal layer. The present invention does not use, rely or claim any type of dual imaging system as that of McFall et al., so there would be no motivation to design the present laminate based upon the disclosures of Doston et al. in view of McFall et al. Accordingly, this rejection under 35 U.S.C. §103(a) has been overcome and should be withdrawn.

In summary, the rejections under 35 U.S.C. §112, second paragraph, and 35 U.S.C. §102(b) and 35 U.S.C. §103(a) have been overcome and should be withdrawn. Accordingly, the present application as amended herein, is now in form for allowance and early reconsideration and allowance of the claims, as currently pending, is earnestly solicited.

Respectfully submitted,

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